

Appl. No. 10/682,217

Amdt. Dated September 14, 2005

Reply to Office Action of August 23, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the above-identified application:

1. (Previously presented) A gas turbine engine comprising:
a turbine scroll inside a combustor housing;
a forward discourager;
an aft discourager;
a B-width, measured between the forward discourager and the aft discourager;
a forward bayonet situation on the forward side of the turbine scroll;
a radial nozzle contacting the forward bayonet on the forward side of the turbine scroll at a bayonet engagement point;
an aft scroll ring;
a retaining ring securing the turbine scroll while maintaining an axial loading point on the aft scroll ring;
a forward scroll ring; and
the retaining ring restraining displacement of the forward scroll ring and the aft scroll ring;
wherein the forward discourager comprises a bending angle of about 90 degrees.
2. (canceled)
3. (original) The gas turbine engine of claim 1, wherein the aft discourager comprises a bending angle within the range of from about 60 degrees to about 120 degrees.
4. (canceled)

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5. (original) The gas turbine engine of claim 3, wherein the aft discourager comprises a bending angle of about 90 degrees.

6. (original) The gas turbine engine of claim 1, wherein the turbine scroll further comprises four pairs of sealing surfaces.

7. (original) The gas turbine engine of claim 1, further comprising a radial seal at the forward side of the radial nozzle and a radial seal at the aft side of the radial nozzle for sealing the radial nozzle against leaking of exhaust gas.

8. (original) The gas turbine engine of claim 1, wherein the turbine scroll is generally coil-shaped.

9. (original) The gas turbine engine comprising:
a turbine scroll inside a combustor housing;
a forward discourager;
an aft discourager;
a B-width, measured between the forward discourager and the aft discourager;
a forward axial seal adjacent to the forward discourager;
an aft axial seal adjacent to the aft discourager;
the forward discourager comprising a 90-degree bending angle;
an aft discourager comprising a 90-degree bending angle;
a radial nozzle engaged with a forward bayonet on the forward side of the turbine scroll;
the forward bayonet contacting the radial nozzle at a bayonet engagement point;
an aft scroll ring;
a retaining ring adjacent the aft scroll ring;
the retaining ring securing the turbine scroll while maintaining an axial loading point on the aft scroll ring; and

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a forward scroll ring;
the retaining ring restraining displacement of forward scroll ring and the aft scroll ring.

10. (original) The gas turbine engine of claim 9, wherein the turbine scroll further comprises four pairs of sealing surfaces.

11. (original) The gas turbine engine of claim 9, further comprising a radial seal at the forward side of the radial nozzle and a radial seal at the aft side of the radial nozzle for sealing the radial nozzle against leaking of exhaust gas.

12. (currently amended) A gas turbine engine comprising:
a turbine scroll inside a combustor housing;
the turbine scroll comprising four pairs of sealing surfaces;
a B-width, measured between a forward discourager and an aft discourager, wherein said B-width is kept constant by action of said four pairs of sealing surfaces;
the forward discourager and the aft discourager comprising a 90-degree bending angle for flow restriction;
a forward bayonet adjacent the forward side of the turbine scroll;
the forward bayonet contacting a radial nozzle at a bayonet engagement point;
a retaining ring adjacent an aft scroll ring;
the retaining ring securing the turbine scroll while maintaining an axial loading point on the aft scroll ring; and
a forward scroll ring;
the retaining ring restraining displacement of the forward scroll ring and the aft scroll ring;

13. (original) The gas turbine engine of claim 12, wherein the turbine scroll is generally coil-shaped.

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14. (original) A gas turbine engine comprising:
 - a compressor section;
 - a combustor section;
 - a compressor scroll;
 - a turbine scroll inside a combustor housing;
 - a forward discourager;
 - an aft discourager;
 - a B-width, measured between the forward discourager and the aft discourager;
 - a forward axial seal adjacent to the forward discourager;
 - an aft axial seal adjacent to the aft discourager;
 - the forward discourager and the aft discourager comprising a 90-degree bending angle for flow restriction;
 - a radial nozzle engaged with a forward bayonet on the forward side of the turbine scroll in six locations;
 - the forward bayonet contacting the radial nozzle at a bayonet engagement point;
 - a radial seal on the forward side of the B-width;
 - a radial seal on the aft side of the B-width;
 - a retaining ring adjacent an aft scroll ring;
 - the retaining ring securing the turbine scroll while maintaining an axial loading point on the aft scroll ring; and
 - a forward scroll ring;
 - the retaining ring restraining displacement of forward scroll ring and the aft scroll ring.

15. (original) The gas turbine engine of claim 14, wherein the turbine scroll is generally coil-shaped.

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16. (previously presented) The gas turbine engine of claim 14, wherein the turbine scroll comprises four pairs of sealing surfaces.

17-22. (canceled)